



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Carl W. Mosher

SUBJECT: EDENVALE WELL #4 CONTRACT **DATE: 5-31-05**
CHANGE ORDER NO. 1

Approved

Date

6/8/05

COUNCIL DISTRICT: 2

RECOMMENDATION

Approval of Contract Change Order No. 1 for Edenvale Well #4 Project, a net increase to the contract of \$51,697 for a total contract amount of \$281,107 and an extension of ten (10) working days for a total of 275 working days.

BACKGROUND

In January 2004, Municipal Water System (Muni Water) retained the services of a qualified hydrogeologist to provide the basis for the design of the Edenvale Well #4 project, and an estimate of construction costs. Based on the Consultant's report, the well was designed to a depth of 300 feet.

On June 22, 2004, Council awarded a contract to Zim Industries, Inc., for the construction of Phase I of the Edenvale Well #4 project in the amount of \$229,410 in Muni Water's Edenvale service area. This well is needed to supply water for the expanded Edenvale Improvement District, as well as provide a backup for existing wells located to the north. The current construction contract is for drilling, installing a casing and flow testing the new well. Phase 2, which is scheduled for award in FY 2005-06 will install the pump, motor and related equipment and connection to the public water main located in Hellyer Avenue.

On May 9, 2005, Zim Industries, Inc., began drilling a pilot hole to locate the depths of the appropriate soil types that would produce the necessary water capacity. During the initial drilling process it was discovered that a significant number of the soil layers consisted of a heavily clay material and not the desired sand and gravel deposits that were expected. Consistent

with the project scope of work, Zim Industries, Inc. conducted a preliminary test on the soils, and concluded that the well would likely not produce the required water flow at the current depth.

ANALYSIS

On May 12, 2005, in an effort to ascertain whether or not the well would need to be drilled deeper to reach more productive water bearing layers, an additional pumping test was performed. This test confirmed that the well, although producing water, would not achieve the desired capacity at its current depth. To prevent costly delays, Muni Water staff requested that Zim Industries, Inc. continue drilling the pilot hole to determine if appropriate water bearing layers could be reached. This resulted in the discovery of additional water bearing layers at approximately 350 feet and a large deposit at 375 feet. To ensure that the full bearing layers will be utilized, Zim Industries, Inc. was instructed to continue drilling to a depth of 440 feet.

The \$17,000 cost of additional drilling and testing fell within the \$23,000 contingency amount previously authorized by Council. However, the cost increase to extend the necessary casing and gravel pack the additional 140 feet exceeds the project's contingency budget.

The contractor was asked to provide a cost proposal for extending the well, which includes reaming the pilot hole, installation of additional screened casing, additional gravel pack, increased well development costs and cuttings disposal. In the cost proposal, the contractor agreed to hold the current bid prices. In addition, the contractor recommended the substitution of approximately 190 feet of mild steel casing for stainless steel casing specified in the area encased in concrete, which would result in a cost savings to the City with no adverse impacts on the performance of the well. The contractor also requested a ten-day time extension to perform the necessary additional work.

Contract Change Order No. 1 will extend Edenvale Well #4 by 140 feet to a depth of 440 feet, and replace 187 feet of stainless steel casing with mild steel. The cost of the additional work is \$67,697. However, a credit of \$16,000 will be realized by the substitution of casing materials for a net increase in the contract amount of \$51,697. This change order includes all costs associated with increasing the well depth including the separate zone test and additional pilot bore drilling and a time extension of ten days.

Extending the well to 440 feet (45% deeper) is a 23% increase from the original cost of \$229,410. Council approval of this change order will preserve the previously approved contingency amount of \$23,000 should additional unforeseen conditions arise.

OUTCOME

The approval of Contract Change Order No. 1 will improve the efficiency and capacity of the well project thereby improving system reliability and providing a reliable source of water to the existing customers.

PUBLIC OUTREACH

This project was advertised in April 2004 in the San Jose Post Record.

COORDINATION

This project has been coordinated with Risk Management Office, Equality Assurance Office, the Offices of the City Manager and Budget and the City Attorney's Office.

COST IMPLICATIONS

1. COST OF RECOMMENDATION: **\$51,697**

2. COST OF PROJECT:

Project Delivery	\$ 35,000
Construction	229,410
Contract Change Order No. 1	51,697
Contingency	<u>23,000</u>

TOTAL PROJECT COST \$ 339,107

Prior Year Expenditures \$ 32,988

REMAINING PROJECT COSTS \$ **306,119**

3. SOURCE OF FUNDING: 502 – Major Facilities Fund

FISCAL IMPACT: This project is consistent with the Council-approved Budget Strategy Economic Recovery section in that it will spur construction spending in our local economy. No General Fund operating or maintenance costs are associated with this project.

BUDGET REFERENCE

Fund #	Appn. #	Appn. Name	Total Appn.	Amt. For Contract	2004-2005 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			\$306,119			
Current Funding Available						
502	4195	Edenvale Well #4	\$813,000	\$281,107	V-293	10/12/04, Ord. No. 27267
Total Current Funding Available			\$813,000	\$281,107		

NONDISCRIMINATION

The City of San José Nondiscrimination Requirements are included in this project.

CEQA

Exempt, PP03-07-239



CARL W. MOSHER

Director, Environmental Services Department